# Phosphates

Phosphorus is one of the key elements necessary for growth of plants and animals. Phosphates PO4--- are formed from this element. Phosphates exist in three forms: orthophosphate, metaphosphate (or polyphosphate) and organically bound phosphate.

**How phosphorous affects aquatic life**

If too much phosphate is present in the water the algae and weeds will grow rapidly, may choke the waterway, and use up large amounts of precious oxygen (in the absence of photosynthesis and as the algae and plants die and are consumed by aerobic bacteria.) The result may be the death of many fish and aquatic organisms.

**Phosphates** enter waterways from human and animal waste, phosphorus rich bedrock, laundry, cleaning, industrial effluents, and fertilizer runoff. These phosphates become detrimental when they over fertilize aquatic plants and cause stepped up eutrophication. Rainfall can cause varying amounts of phosphates to wash from farm soils into nearby waterways.

**Prevention**

Use phosphate free laundry detergent and avoid using organic pesticides. Phosphates are also found in sewage, so effective waste treatment can help prevent phosphates from getting into waterways.